

# Audit



# Report

## OFFICE OF THE INSPECTOR GENERAL

### ACQUISITION OF REPLACEMENT AIRCRAFT FOR MODEL VC-137 AIRCRAFT

Report No. 96-102

April 29, 1996

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Department of Defense

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### **Acronym**

RFP  
89AW

Request for Proposal  
89th Airlift Wing



INSPECTOR GENERAL  
DEPARTMENT OF DEFENSE  
400 ARMY NAVY DRIVE  
ARLINGTON, VIRGINIA 22202-2884



April 29, 1996

MEMORANDUM FOR ASSISTANT SECRETARY OF THE AIR FORCE  
(FINANCIAL MANAGEMENT AND COMPTROLLER)

SUBJECT: Audit Report on the Acquisition of Replacement Aircraft for Model  
VC-137 Aircraft (Report No. 96-102)

We are providing this final report for your information and use. This audit resulted from a complaint made to the Defense Hotline concerning travel communications support for the Secretary of Defense and Chairman, Joint Chiefs of Staff. Comments on a draft of this report were considered in preparing the final report.

The Air Force nonconcurred with the finding and draft report recommendation to amend the request for proposal. Subsequently, the Air Force canceled the request for proposal which left no unresolved issues. Therefore, no additional comments are required.

We appreciate the courtesies extended to the audit staff. Questions on the audit should be directed to Mr. Robert M. Murrell, Audit Program Director, at (703) 604-9507 (DSN 664-9507) or Mr. Eric B. Edwards, Audit Project Manager, at (703) 604-9515 (DSN 664-9515). See Appendix E for the report distribution. The audit team members are listed inside the back cover.

*David Steensma*

David K. Steensma  
Deputy Assistant Inspector General  
for Auditing

## Office of the Inspector General, DoD

**Report No. 96-102**  
(Project No. 5RD-8013.01)

**April 29, 1996**

### Acquisition of Replacement Aircraft for Model VC-137 Aircraft

#### Executive Summary

**Introduction.** This report is the second of two reports resulting from our Audit of Communications Support for Senior DoD Officials. The audit was performed in response to a complaint (Case No. 95-L59295) made to the Defense Hotline concerning travel communications support for the Secretary of Defense and Chairman, Joint Chiefs of Staff. This report discusses the acquisition strategy for acquiring aircraft to replace VC-137 aircraft in the 89th Airlift Wing, Andrews Air Force Base, Maryland. The mission of the 89th Airlift Wing is to provide worldwide air transportation for the President of the United States, the Vice President, Cabinet members, congressional delegations, members of the Joint Staff, and other American and foreign dignitaries. Report No. 96-089, "Communications Support for Senior DoD Officials", March 26, 1996, discusses the results of our review of the complaint made to the Defense Hotline.

**Objectives.** The overall audit objective was to evaluate communications that support the Secretary of Defense and the Chairman, Joint Chiefs of Staff. The specific objective was to evaluate the Air Force acquisition to replace VC-137 aircraft.

**Audit Results.** The lease-to-purchase acquisition strategy selected by the Air Force to replace aging VC-137 aircraft in the executive fleet of the 89th Airlift Wing may not be the most cost-effective method to acquire the aircraft (see Part I). The lease-to-purchase strategy could cost an additional \$120.4 million.

**Management Comments.** The Air Force nonconcurred with the audit finding and draft report recommendation to solicit bids for both a lease-to-purchase acquisition strategy and a purchase-all acquisition strategy to determine the most cost-effective strategy to replace Model VC-137 aircraft. The Air Force agreed that in undiscounted then-year dollars, the less costly strategy is to buy all aircraft. However, the \$450 million of procurement funding needed would impact on other acquisition programs. See Part III for the complete text of management comments.

**Audit Response.** After commenting on the draft report, on April 8, 1996, the Air Force canceled the request for proposal. Therefore, we deleted the draft report recommendation. Nonetheless, the Air Force original acquisition approach did not include a provision to obtain costs for a purchase-all acquisition strategy. We continue to believe that for any future plans to replace Model VC-137 aircraft, the Air Force should obtain bids for both a lease-to-purchase approach and a purchase-all approach. The Air Force should use the option that is least costly to the DoD.

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## **Part I - Audit Results**

## Audit Background

In reviewing communications support for senior DoD officials regarding allegations in a complaint received by the Defense Hotline, we identified problems in a planned Air Force acquisition strategy. The complaint to the Defense Hotline is discussed in a separate report.

**89th Airlift Wing Executive Fleet.** The Air Force provides worldwide air transportation for the President of the United States, the Vice President, Cabinet members, congressional delegations, members of the Joint Staff, and other American and foreign dignitaries. This mission is executed by the 89th Airlift Wing (89AW), a component of the Air Mobility Command (formerly the Military Airlift Command), Scott Air Force Base, Illinois. The 89AW is located at Andrews Air Force Base, Maryland.

The mission of the 89AW is to provide safe, secure, and reliable air transportation for designated officials to suitable airports throughout the world within 24 hours and to provide secure, worldwide communications. Because principals and their staffs must conduct business en route, physical and communications security are vital so that mission objectives are not compromised. Mission protocol dictates almost exclusive use of civilian airports.

The 89AW has the following aircraft in inventory.

**89AW Aircraft Inventory**  
(as of September 30, 1995)

<u>Aircraft Type</u>	<u>Quantity</u>	<u>Model Year</u>	<u>Seating Capacity</u>
C-9C (DC-9)	3	1973	42
C-20B (Gulfstream 3)	6	1986	12
C-20H (Gulfstream 4)	1	1994	12
VC-137B (707/100)	3	1958	59
VC-137C (707/300)	4	1962 through 1972	61
VC-25A (747)	2	1988	70

For the purposes of this report, we refer to the VC-137B and VC-137C aircraft as VC-137B/C aircraft. The Air Force plans to replace the seven VC-137B/C aircraft in the 89AW inventory with four Model C-32A (VC-X) that will have the capacity to carry a minimum of 60 passengers and 19 crew members and with two small aircraft that may carry a minimum of 10 passengers and 5 crew members.

**VC-137B/C Aircraft.** The seven VC-137B/C aircraft provide a long-range, high-passenger-volume capability for the 89AW. Obtaining spare parts to reliably operate the seven VC-137B/Cs, among the last Boeing 707-100/300s flown in the world, is difficult. The aircraft require logistical support, such as airstairs, ground power, and heating and cooling equipment. The Air Force must either rent the necessary equipment at the aircraft's destination or fly it to the destination.

**Adequacy of Communications Systems.** The communications system on board the VC-137B/C aircraft lacked sufficient channel capacity to meet secure voice and data communications requirements for senior Government officials. The single, ultrahigh frequency satellite system on board the aircraft experienced failures and did not provide the level of service required by senior officials. Communications upgrades costing \$12.8 million were made to the seven VC-137B/Cs during FY 1995 to remedy those deficiencies.

**Meeting Noise Restrictions.** Federal Aviation Regulation part 36 classifies airplane engines as Stage 1, Stage 2, or Stage 3 according to the amount of noise that engines produce. Stage 3 engines produce the least amount of noise. According to the Airport Noise and Capacity Act of 1990, Stage 3 engines must be used on all aircraft weighing more than 75,000 pounds and flying to or from any city in the 48 contiguous states and the District of Columbia after December 31, 1999.

The VC-137C aircraft do not meet Stage 2 noise levels, and the VC-137B aircraft do not meet Stage 3 noise levels. Because the missions of senior DoD officials frequently require landings at civilian airports in the United States, the 89AW plans to replace the VC-137B/C aircraft with aircraft powered by Stage 3 engines.

## Audit Objectives

The overall audit objective was to evaluate communications that support the Secretary of Defense and the Chairman, Joint Chiefs of Staff. The specific objective was to evaluate the Air Force acquisition strategy to replace VC-137B/C aircraft. Report No. 96-089 "Communications Support for Senior DoD Officials", March 26, 1996, discusses the results of our review of the complaint made to the Defense Hotline. See Appendix A for a discussion of the audit scope and methodology and prior audit coverage.

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## **Acquisition of Replacement Aircraft for the 89th Airlift Wing**

The lease-to-purchase acquisition strategy selected by the Air Force may not be the most cost-effective method to replace seven VC-137B/C aircraft. The Air Force did not include in its request for proposal a provision for a price quote for purchasing the six replacement aircraft in order to compare purchase costs to the lease-to-purchase costs of the aircraft. The lease-to-purchase strategy could cost an additional \$120.4 million.

### **Federal and DoD Guidance on Acquisition Procedures**

Guidance on capital asset acquisition procedures is in Office of Management and Budget Circular A-94, "Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs" February 25, 1993, and DoD Instruction 7041.3, "Economic Analysis and Program Evaluation for Resource Management", October 18, 1972. Circular A-94 states, "Whenever a Federal agency needs to acquire the use of a capital asset, it should do so in the way that is least expensive for the Government as a whole." Further, DoD Instruction 7041.3 states:

Where alternative methods of financing are available, a comparative cost analysis should be prepared to show that the lowest cost method of acquisition has been considered . . . . When alternatives for achieving a given mission/objective have the same level of benefits, the alternative with the lowest discounted cost or lowest uniform annual cost should be preferred.

The revised DoD Instruction No. 7041.3, "Economic Analysis for Decisionmaking," November 7, 1995, states, "When a DoD activity needs to acquire the use of a capital asset, it should do so in the way that has the least expensive life-cycle cost to the Government."

### **Acquisition Planning**

In December 1987, the Air Force determined that the VC-137B/C aircraft did not meet the noise levels required by the Federal Aviation Administration and the International Civil Aviation Organization.

In 1989, the Air Force prepared the Military Airlift Wing Master Plan to acquire replacement aircraft, but the plan was not funded by Congress during the FY 1990 budget process. The Air Force made another effort to replace the aircraft by developing the VC-137 Replacement Program; however, the Air

Force determined that the planned replacement aircraft were inadequate and terminated the program. Funding for replacement of the aircraft was provided in the President's Budget, but the procurement was canceled when the Air Force determined that a mixed fleet was inadequate to maintain mission capability. Funding was again provided in the FY 1995 Program Objective Memorandum, but the associated purchase schedule would not have provided aircraft powered by Stage 3 engines in time to meet the December 31, 1999, deadline established by the Airport Noise and Capacity Act of 1990. Consequently, an accelerated replacement plan using a lease-to-purchase strategy was included in the proposed FY 1996 President's Budget. Additional details on the chronology of acquisition planning are in Appendix B.

### Initial Lease-to-Purchase Acquisition Strategy

In June 1995, the Air Force submitted a draft legislative proposal to Congress to authorize the lease, with an option to purchase, six full-size, international range, 60-seat, C-32A (VC-X) aircraft to replace the seven VC-137B/C aircraft assigned to the 89AW. The proposal stated:

Congressional support is necessary to successfully implement our lease-to-buy strategy within available funding. This strategy is based on a yearly lease that is dependent upon annual appropriation and includes annual options to buy beginning in FY 1998 at a buy profile of one aircraft in FY 1998, one in FY 1999, and two each in FY 2000 and FY 2001. A lease with an option to purchase, rather than a direct purchase, is contemplated to permit early delivery.

The VC-X funding profile in the proposal was \$1,019.5 million for FYs 1996 through 2001. The funding profile included \$371.1 million in Operation and Maintenance funding for combined VC-137/C-32A operations and lease requirements and \$648.1 million in Procurement funding for purchasing the C-32A aircraft.

The Air Force implemented the lease-to-purchase strategy because the Air Force considered the lease-to-purchase strategy the most cost-effective alternative and believed that leasing rather than purchasing would result in earlier delivery of the aircraft. The proposed plan was to award a full and open competition contract in early FY 1996 to acquire new or used aircraft. The aircraft were to be modified to required specifications and were to be delivered to the Air Force under a lease arrangement in early FY 1997. The proposed option was to purchase the six leased aircraft over a 4-year period with one plane purchased per year in FYs 1998 and 1999 and two planes purchased per year in FYs 2000 and 2001. However, our evaluation of purchase and lease-to-purchase delivery time tables showed there is no difference in the aircraft delivery schedule, regardless of which strategy is used.

## Lease-to-Purchase Strategy

**VC-X Split Plan Lease-to-Purchase Acquisition Strategy.** Before the Air Force submitted the proposal for congressional action, the Air Force revised the proposal to authorize the lease, with option to purchase, four full-size Model C32-A aircraft (VC-X) and to buy two long-range, business aircraft. This revised proposal is referred to as the "VC-X split plan." The Air Force estimated that the cost of the VC-X split plan would be \$884.4 million. The Air Force Request for Proposal No. F33657-95-R-0075, dated October 13, 1995, did not include a provision for contractors to provide comparative cost estimates to purchase as well as to lease-to-purchase the six replacement aircraft.

**VC-X Split Plan Cost Estimate.** Using information provided by the Air Force, we prepared a comparative estimate of the cost to purchase all six aircraft in FY 1996. We estimated that cost at \$764.0 million, which is \$120.4 million less than the Air Force VC-X split plan (\$884.4 million). Appendix C shows details on the cost estimate for purchasing the aircraft in FY 1996.

## Conclusion

The Air Force acquisition strategy for the lease-to-purchase of four Model VC-X aircraft and two long-range, business aircraft to replace the seven VC-137B/C aircraft may not result in a cost-effective procurement. The request for proposal for the VC-X split plan did not include a provision to obtain costs to purchase and lease-to-purchase the aircraft. According to Federal and DoD guidance, procurements should be made in the manner that is least expensive for the Government. We believe that the Air Force should provide the means of assessing the costs for both the purchase and lease-to-purchase strategies. Until the Air Force completes the cost comparison, the specific amount of monetary benefits are undeterminable.

## Management Comments and Audit Response

**Recommendation Deleted.** In the draft report, we recommended that the Air Force solicit bids for both a lease-to-purchase acquisition strategy and a purchase-all acquisition strategy to determine the most cost-effective strategy to replace Model VC-137B/C aircraft. After submitting comments on the draft report, on April 8, 1996, the Air Force canceled the request for proposal. Therefore, we deleted the recommendation made in the draft report.

## Acquisition of Replacement Aircraft for the 89th Airlift Wing

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**Management Comments.** On February 28, 1996, the Air Force provided comments on the audit report and nonconcurred with the audit finding and draft report recommendation. Part III contains the complete text of the comments.

**Audit Response.** The Air Force original acquisition approach did not include a provision to obtain costs for a purchase-all acquisition strategy and, therefore, we continue to believe that for any future plans to replace Model VC-137B/C aircraft, the Air Force should obtain bids for both a lease-to-purchase approach and a purchase-all approach.

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## **Part II - Additional Information**

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## **Appendix A. Scope and Methodology**

### **Scope**

To assess the communications functions performed in support of senior DoD officials, we evaluated the validity of the allegations made to the Defense Hotline and the missions and functions of organizations supporting the Secretary of Defense and the Chairman, Joint Chiefs of Staff. As a result of that work, we identified problems concerning acquisition issues related to aircraft of the 89AW Executive Fleet.

### **Methodology**

In evaluating the Air Force acquisition strategy for the replacement of the VC-137B/C aircraft in the 89AW, we:

- o examined program documentation dated from FYs 1987 through 1995; and
- o reviewed the VC-X request for proposal, cost estimates, and requirements documents.

The Audit Planning and Technical Support Directorate, Quantitative Methods Division, Office of the Inspector General, DoD, provided technical assistance in analyzing the cost estimates and methodology used by the Air Force. The audit relied on computer-processed data for information; however, we did not rely on the computer-processed data to develop our audit conclusions. We did not use statistical sampling procedures to perform the audit.

### **Audit Period, Standards, and Locations**

We performed this economy and efficiency audit from July 1995 through January 1996. The audit was performed in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD. Appendix D lists the organizations we visited or contacted.

## Prior Audits and Other Reviews

**General Accounting Office Report.** Report No. NSIAD-92-133, "Military Aircraft, Policies on Government Officials' Use of 89th Military Airlift Wing Aircraft," April 9, 1992, states that the policies that discuss the use of military aircraft are so broad and vague as to have little effect on the use of the 89AW aircraft by either executive or legislative branch officials. The use of the aircraft is free of charge to all but a few users, and no one independently verifies compliance with the policies. The report recommends that Office of Management and Budget Circular A-126 and other policies that discuss executive branch use of the 89AW aircraft be clarified to provide better assurance that the aircraft are used appropriately and consistently. The report also recommends that Congress adopt similar policies for the use of the 89AW aircraft by legislative officials. In response to the report, the Office of Management and Budget officials agreed to consider the report conclusions and recommendation to revise Circular A-126.

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## **Appendix B. Chronology of Acquisition Planning for Replacement Aircraft**

Military Airlift Command Statement of Operational Need, December 1, 1987, "Re-engineering VC-137C Aircraft, 89th Military Airlift Wing, Andrews Air Force Base, Maryland," identified a mission element need to reduce the VC-137C engine noise level to a level required by Federal Aviation Regulation part 36. The Statement of Operational Need further stated that the VC-137C aircraft did not meet International Civil Aviation Organization noise standards.

The "National Defense Authorization Act for Fiscal Years 1990-1991, Report of the Committee on Armed Services, House of Representatives," July 1, 1989, states that the ability of VC-137B/C engines to meet United States and international noise standards prevented the VC-137B/C aircraft from landing at major civilian airports in the United States and around the world. The report directed the Air Force to develop a plan for modernizing the assets of the 89AW, including the VC-137B/C aircraft, and to present the plan to the House Committee on Armed Services on September 30, 1989. In response to the report, the Air Force prepared the Military Airlift Wing Master Plan, dated September 1, 1989. The master plan included plans to acquire aircraft that would meet range, noise, passenger capacity, and communications requirements established by the 89AW. However, during the FY 1990 budget process, the Armed Services Committees Conference did not support funding the plan; consequently, the plan was not implemented in FY 1990.

A new Military Airlift Command Statement of Operational Need, May 1, 1991, "VC-137B/C Replacement Aircraft," stated that the VC-137B/C aircraft engines did not comply with the Federal Aviation Administration Stage 2 and Stage 3 noise levels. The Statement of Operational Need noted that due to the age of the VC-137B/C aircraft, they required additional costly support, such as airstairs, ground power, and heating and cooling equipment. The Statement of Operational Need confirmed the need to replace the VC-137C aircraft and established the need to replace the VC-137B aircraft. Subsequently, the Air Force developed the VC-137 Replacement Program.

The Air Force VC-137 Replacement Program became a special item in the Air Force FY 1992 Program Objective Memorandum and specified the procurement of three small aircraft and four large aircraft during FYs 1993 through 1999. However, the Air Force determined that the proposed replacement aircraft were not adequate to fulfill the mission of the 89AW and, accordingly, eliminated the program from the FY 1994 President's Budget and terminated program actions.

The Air Force proposed retiring three VC-137B aircraft during FYs 1993 and 1994. As a result of the proposed retirement, the FY 1994 President's Budget did not provide Operation and Maintenance funds for the three VC-137B aircraft. However, because the retirement of those three aircraft would have had a detrimental effect on the ability of the 89AW to support long-range air travel of senior civilian and military officials, the Air Force canceled retirement plans in May 1993.

## **Appendix B. Chronology of Acquisition Planning for Replacement Aircraft**

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The FY 1995 President's Budget restored funding for the replacement of the VC-137B/C aircraft by providing funds to purchase six high-passenger capacity aircraft, with one aircraft purchased each year during FYs 1998 through 2003. However, this procurement schedule would not have replaced the VC-137B/C aircraft with aircraft powered by Stage 3 engines in time to meet the December 31, 1999, deadline mandated by the Airport Noise and Capacity Act of 1990.

The Air Force included an accelerated replacement plan, known as the VC-X split plan, in the proposed FY 1996 President's Budget. The plan is to lease four high-passenger capacity aircraft from FYs 1997 through 1998 and to purchase the aircraft from FYs 1998 through 2000. The plan also requires the purchase of two long-range, 10-seat, business aircraft in FY 1997.

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## **Appendix C. Comparative Cost Estimates for Acquisition of Replacement Aircraft**

The VC-X split plan is a plan to lease four full-size, international-range, 60-seat, Model C-32A (VC-X) aircraft in FY 1996 and to begin purchase of those aircraft in FY 1998. The procurement is to be accomplished through contract options to purchase the four leased aircraft over a 3-year period, beginning in FY 1998, with one aircraft purchased in FY 1998, one aircraft in FY 1999, and two aircraft in FY 2000. The split plan also includes the purchase of two smaller, long-range, 10-seat, business aircraft in FY 1997. The planned delivery date is FY 1998. The VC-137B/C aircraft will be removed from the 89AW inventory once the new aircraft are delivered. The Air Force did not determine the costs to purchase the six aircraft in FY 1996 and did not make a comparison of purchase costs to lease-to-purchase costs in the split plan. Without making the comparison, the Air Force may not have selected the most cost-effective method to replace the VC-137B/C aircraft. Our analyses of Air Force data showed that the costs to purchase the six aircraft in the split plan was about \$764.0 million, or about \$120.4 million less than the \$884.4 million cost of the lease-to-purchase alternative cited in the Air Force estimate. Details on the Air Force VC-X split plan cost estimate are shown in Table C-1, and details on our estimated cost to purchase all aircraft in the VC-X split plan are shown in Table C-2.

**Appendix C. Comparative Cost Estimates for Acquisition of Replacement Aircraft**

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**Table C-1. Air Force VC-X Split Plan Cost Estimate**

<u>Category</u>	Cost (millions)	Cost (millions)
Lease Payments	\$90.9	
<b>Subtotal</b>		<b>\$90.9</b>
Operations and Support		
VC-137	\$ 73.1	
Large VC-X	63.2	
Small VC-X	13.7	
<b>Subtotal</b>		<b>\$150.1</b>
Special Projects		
Office Funds		<b>\$9.8</b>
Initial Spares		
Large VC-X	32.2	
Small VC-X	14.9	
<b>Subtotal</b>		<b>\$47.1</b>
Procurement		
Large VC-X	469.6	
Small VC-X	116.9	
<b>Subtotal</b>		<b>\$586.5</b>
<b>Total</b>		<b>\$884.4</b>

Note: Amounts were rounded.

## Appendix C. Comparative Cost Estimates for Acquisition of Replacement Aircraft

**Table C-2. Estimated Cost to Purchase All Aircraft in VC-X Split Plan**

<u>Category</u>	<u>Cost</u> <u>(millions)</u>	<u>Cost</u> <u>(millions)</u>
Operations and Support		
VC-137	\$ 73.1	
Large VC-X	72.2	
Small VC-X	13.8	
Subtotal		<b>\$159.1</b>
Special Projects		
Office Funds		<b>\$9.9</b>
Initial Spares		
Large VC-X	23.2	
Small VC-X	14.9	
Subtotal		<b>\$38.1</b>
Procurement		
Large VC-X	440.0	
Small VC-X	116.9	
Subtotal		<b>\$556.9</b>
<b>Total</b>		<b>\$764.0</b>

Note: Amounts were rounded.

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## **Appendix D. Organizations Visited or Contacted**

### **Office of the Secretary of Defense**

Under Secretary of Defense (Comptroller), Washington, DC  
Assistant Secretary of Defense (Command, Control, Communications and Intelligence),  
Washington, DC

### **Joint Staff**

Director for Operations (J-3), Washington, DC  
National Military Command Center, Washington, DC  
Nuclear Operations/Command and Control Division Command Center Liaison  
Section, Washington, DC  
National Airborne Operations Center, Offutt Air Force Base, NE  
Director for Command, Control, Communication and Computer Systems (J-6),  
Washington, DC  
Command Centers Support Division, Washington, DC  
C4 Resources Planning and Evaluation Division, Washington, DC

### **Department of the Army**

Director of Information Systems for Command, Control, Communications and  
Computers, Washington, DC

### **Department of the Navy**

Naval Command, Control and Ocean Surveillance Center In-Service Engineering, East  
Coast Detachment, Systems Engineering and Integration Division, St. Inigoes, MD

## **Department of the Air Force**

Assistant Secretary of the Air Force (Financial Management and Comptroller),  
Washington, DC  
Deputy Assistant Secretary (Budget), Washington, DC  
Assistant Secretary of the Air Force (Acquisition), Washington, DC  
Special Operations Forces Airlift and Training Division, Washington, DC  
Office of the Vice Chief of Staff  
Office of the Special Air Mission, Washington, DC  
Deputy Chief of Staff, Command, Control, Communications, and Computers,  
Washington, DC  
Air Force Pentagon Communications Agency, Washington, DC  
Combat Systems Division, Washington, DC  
Deputy Chief of Staff Plans and Operations, Washington, DC  
Directorate of Operational Requirements, Washington, DC  
Mobility Training and Special Operations Requirements Division,  
Washington, DC  
Air Mobility Command, Scott Air Force Base, IL  
Aircraft Branch, Scott Air Force Base, IL  
89th Airlift Wing, Andrews Air Force Base, MD  
Headquarters, Air Force Materiel Command, Wright-Patterson Air Force Base, OH  
Air Force Flight Test Center, 412th Flight Test Squadron, Edwards  
Air Force Base, CA  
Electronic Systems Center, Hanscom Air Force Base, MA  
Oklahoma City Air Logistics Center, Tinker Air Force Base, OK  
Commercial Aircraft Integrated Product Team, Headquarters, Air Force Systems  
Command, Wright-Patterson, Air Force Base, OH

## **Other Defense Organizations**

Defense Information Systems Agency, Arlington, VA  
Deputy Director for Engineering and Interoperability, Arlington, VA  
Communications Watch Division, Westhem, Arlington, VA  
Joint Interoperability and Engineering Organization, Reston, VA  
Washington Headquarters Services, Washington, DC  
Director for Correspondence and Directives, Washington, DC  
Cables Division, Washington, DC

## **Non-Defense Federal Organizations**

Office of Management and Budget, Washington, DC  
Department of Transportation, Federal Aviation Administration, Office of Environment  
and Energy, Washington, DC  
Policy and Regulatory Division, Washington, DC

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## **Appendix E. Report Distribution**

### **Office of the Secretary of Defense**

Under Secretary of Defense for Acquisition and Technology  
Deputy Under Secretary of Defense (Acquisition Reform)  
Director, Defense Procurement  
Director, Defense Logistics Studies Information Exchange  
Under Secretary of Defense (Comptroller)  
Deputy Chief Financial Officer  
Deputy Comptroller (Program/Budget)  
Assistant to the Secretary of Defense (Public Affairs)

### **Joint Staff**

Director, Joint Staff  
Director for Operations (J3)  
Director for Command, Control, Communication and Computer Systems (J6)

### **Department of the Army**

Auditor General, Department of the Army

### **Department of the Navy**

Assistant Secretary of the Navy (Financial Management and Comptroller)  
Auditor General, Department of the Navy

### **Department of the Air Force**

Assistant Secretary of the Air Force (Acquisition)  
Assistant Secretary of the Air Force (Financial Management and Comptroller)  
Auditor General, Department of the Air Force

### **Defense Organizations**

Director, Defense Contract Audit Agency  
Director, Defense Logistics Agency  
Director, National Security Agency  
Inspector General, National Security Agency

## **Non-Defense Federal Organizations and Individuals**

Office of Management and Budget

Technical Information Center, National Security and International Affairs Division,  
General Accounting Office

Chairman and ranking minority member of each of the following congressional  
committees and subcommittees:

Senate Committee on Appropriations

Senate Subcommittee on Defense, Committee on Appropriations

Senate Committee on Armed Services

Senate Committee on Governmental Affairs

House Committee on Appropriations

House Subcommittee on National Security, Committee on Appropriations

House Committee on Government Reform and Oversight

House Subcommittee on National Security, International Affairs, and Criminal  
Justice, Committee on Government Reform and Oversight

House Committee on National Security

## **Part III - Management Comments**

# Department of the Air Force Comments



DEPARTMENT OF THE AIR FORCE  
WASHINGTON DC

28 FEB 1996

OFFICE OF THE ASSISTANT SECRETARY

MEMORANDUM FOR ASSISTANT INSPECTOR GENERAL FOR AUDITING, OFFICE OF  
THE INSPECTOR GENERAL, DEPARTMENT OF DEFENSE

FROM: SAF/AQQ  
1060 Air Force Pentagon  
Washington DC 20330-1060

SUBJECT: DoD IG Draft Audit Report on Acquisition of Replacement Aircraft for Model  
VC-137 Aircraft (Project No. 5RD-8013.01) 30 January 1996

This is in reply to your request for Air Force comments on the subject report. Air Force  
comments are attached. Air Force point of contact for questions or additional information is  
Lt Col Steve Brown, SAF/AQQU, 695-7992.

A handwritten signature in black ink, appearing to read "Peter J. Ben".

PETER J. BEN, Colonel, USAF  
Deputy Director of Global Reach Programs  
Assistant Secretary (Acquisition)

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Comments on Draft DoD IG Audit Report

Air Force Comments on DoD IG Draft Audit Report on Acquisition of Replacement Aircraft for  
Model VC-137 Aircraft (Project No. 5RD-8013.01) 30 January 1996

General Comments:

- (1) In accordance with Office of Management and Budget (OMB) Circular A-94 (Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs), the Air Force conducted a lease-purchase analysis of the C-137 Replacement (VC-X). This analysis, which calculated a net present value (NPV) using OMB approved discount rates, showed that lease-to-purchase of six large aircraft was less costly than buying new aircraft up front. The Air Force forwarded this analysis through OSD and OMB, and both agencies concurred in our analysis and approved the lease-to-purchase acquisition strategy. During the data gathering phase of this audit, the Air Force acknowledged that, in then-year dollars, a lease-to-purchase strategy was not the least costly method of replacing the C-137 fleet. However, since the lease-to-purchase strategy selected by the Air Force is the less costly strategy in discounted dollars, it is the best strategy given current fiscal realities and Air Force priorities.
- (2) The Air Force pursued a lease-to-purchase strategy because it was the only affordable option, given fiscal realities and the urgency of replacing the C-137 aircraft. An outright purchase of four large VC-X aircraft which maintains the planned delivery schedule requires aircraft procurement funding in excess of \$450 million in FY96. This audit report fails to highlight the significant up-front costs to the Government required for a straight purchase and the impact that funding VC-X would have had on other acquisition programs.
- (3) All references to "full size" model aircraft, "long range business aircraft" and the "VC-X split plan" should be deleted. The Air Force does not use these terms in connection with the VC-X Program. The Air Force uses the terms "large VC-X" and "small VC-X." The VC-X program is the acquisition of four large aircraft and two small aircraft.

## Department of the Air Force Comments

Final Report  
Reference

### Specific Comments:

#### (1) Outside and Inside Cover Sheets and Memorandum for SAF/FM:

RECOMMENDATION: Delete Special Warning.

RATIONALE: The draft report does not contain any source selection sensitive information.

#### (2) Executive Summary, Introduction, last sentence:

RECOMMENDATION: Does January 29, 1996 refer to the first report included under separate cover or to this (second) draft report? If the date refers to the first report, delete last sentence since it has no bearing on this report; if it refers to the second report, change date to January 30, 1996 to agree with date on cover page.

RATIONALE: Clarity.

#### (3) Executive Summary, Audit Results:

COMMENT: General comment (1) applies. The Air Force has always admitted that leasing is more expensive in then-year dollars. Since the lease-to-purchase strategy selected by the Air Force is less costly in discounted dollars, it is the best strategy given fiscal realities and Air Force priorities.

#### (4) Executive Summary, Summary of Recommendations:

COMMENT: The Air Force structured the RFP to obtain bids for both a lease-to-purchase and a "purchase-all" alternative. This gives the Air Force the flexibility to lease the aircraft through FY 2004, should procurement funding not be available, or to buy the aircraft at any point from contract award through 30 Sep 04. There is no need to amend the RFP.

#### (5) Page 2, Audit Background, Inventory Chart:

RECOMMENDATION: Change model year of C-20H to 1994.

RATIONALE: Correctness.

#### (6) Page 3, Audit Background, 89th Airlift Wing Executive Fleet:

RECOMMENDATION: Change wording to show that the Air Force plans to replace the seven C-137s in the 89AW inventory with four large aircraft (C-32As) that will have the capacity of carrying a minimum of 60 passengers and 19 crew members and with two small aircraft that may carry a minimum of 10 or more passengers and five or more crew members.

RATIONALE: Clarity.

#### (7) Page 3, Audit Background, Meeting Noise Restrictions, second paragraph, first sentence:

RECOMMENDATION: Change to read: "The VC-137B/C aircraft engines do not meet Stage 3 noise levels."

RATIONALE: Correctness.

(8) Page 5. Acquisition of Replacement Aircraft for the 89th Airlift Wing:  
COMMENT: Specific comments (3) and (4) above apply.  
RECOMMENDATION: Delete second sentence in this paragraph  
RATIONALE: Accuracy

(9) Page 5. Federal and DoD Guidance on Acquisition Procedures:  
General comments (1) and (2) above apply.

(10) Page 6. Acquisition Planning, second paragraph:  
RECOMMENDATION: Change third and fourth sentences to read: "Funding for replacement of the aircraft was provided in the FY 1993 President's Budget, but was pulled when the Air Force determined a mixed fleet was inadequate to maintain mission capability. Funding was again provided in the FY 1995 POM, but the associated purchase schedule would not have provided . . ."  
RATIONALE: Completeness

(11) Page 7. Initial Lease-To-Purchase Acquisition Strategy, first paragraph:  
General comment (2) above applies. The Air Force never believed that leasing in itself would lead to earlier delivery of the aircraft – the Air Force agrees that there is no difference in aircraft delivery schedule if the purchase of all aircraft up-front were affordable.

(12) Pages 7-8. Lease-To-Purchase Strategy:  
COMMENT: The VC-X RFP released on 13 Oct 95 included monthly, firm-fixed-price options to buy from one to four large aircraft beginning with contract award and ending on 30 Sep 04. There is no reason to purchase all six aircraft in the same year since they are of different types, planned for separate acquisition contracts, and the small VC-X acquisition does not involve a lease.

(13) Pages 7-8. Conclusion:  
COMMENT: Specific comment (12) applies. The Air Force agrees that in undiscounted, then-year dollars, the less costly strategy is to buy all large VC-X aircraft up front. However, the Air Force, after considering the impact to other acquisition programs, could not afford that approach and decided upon a lease-to-purchase strategy. When the C-137 replacement program changed from six large aircraft to four large aircraft and two small aircraft, the Air Force reaccomplished the lease-purchase analysis for the four large aircraft. The NPV analysis again supported lease-to-purchase versus a straight buy as the most cost-effective alternative in discounted dollars.

(14) Page 8. Recommendations for Corrective Action: The Air Force non-concurs with the recommendation. There is no need to amend the RFP since it already includes monthly, firm-fixed-price options to buy from one to four large aircraft beginning with contract award and ending on 30 Sep 04.

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Page 12

(15) Page 13, second paragraph, first line:  
RECOMMENDATION: Change "President's Budget" to "POM."  
RATIONALE: Accuracy.

(16) Page 13, last paragraph, line 4:  
RECOMMENDATION: Change "2001" to "2000."  
RATIONALE: Correctness.

(17) Pages 14-16, Appendix C, line 9, "The Air Force did not determine the costs to purchase the six aircraft in FY 1996 and did not make a comparison of purchase costs to lease-to-purchase cost in the split plan."  
COMMENT: In the original Lease-Purchase Analysis that the Air Force conducted for a six large aircraft buy, we compared three alternatives: lease-to-purchase of new aircraft; buy new aircraft in FY 1996; and buy used aircraft in FY 1996. The Air Force determined costs to purchase in FY 1996 and then compared these costs against lease-to-purchase costs. In discounted dollars, lease-to-purchase was the least expensive alternative. Subsequently, when the Air Force changed its force structure from six large aircraft to a four large/two small aircraft mix, we reaccomplished the Lease-Purchase Analysis for a four-aircraft lease-to-purchase, using the same assumptions as in the earlier NPV analysis. The results supported lease-to-purchase versus a straight buy as the most cost-effective alternative in constant year dollars.  
The Air Force did not include the two small VC-X aircraft in the comparison because small VC-X will be a direct procurement through the competitive acquisition process. A lease-to-buy approach was not considered for the small VC-X; therefore, a lease-purchase Analysis was not required.

(18) Page 18, Department of the Air Force:  
RECOMMENDATION: Change "89th Military Airlift Command" to "89th Airlift Wing."  
RATIONALE: Correctness.

## **Audit Team Members**

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## INTERNET DOCUMENT INFORMATION FORM

**A. Report Title: Acquisition of Replacement Aircraft for Model VC-137 Aircraft**

**B. DATE Report Downloaded From the Internet: 12/06/99**

**C. Report's Point of Contact: (Name, Organization, Address, Office Symbol, & Ph #):** OAIG-AUD (ATTN: AFTS Audit Suggestions)  
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**D. Currently Applicable Classification Level: Unclassified**

**E. Distribution Statement A: Approved for Public Release**

**F. The foregoing information was compiled and provided by:**  
DTIC-OCA, Initials: VM Preparation Date 12/06/99

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